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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,384	11/21/2001	Takeshi Kawasaki	FUJI 19.200	3320

26304 7590 06/15/2005

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EXAMINER	
GREY, CHRISTOPHER P	
ART UNIT	**PAPER NUMBER**
2667	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/991,384	KAWASAKI ET AL.	
	Examiner	Art Unit	
	Christopher P Grey	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Block et al. (US 6658473) in view of Yoshida et al. (US 6401121)

Claim 1, 2 Block et al. ('Block' hereinafter) discloses a method for distributing a load in a multiple server environment (Col 2 lines 58-65).

Block discloses attaching (storing) a probabilistic weight, where a weight value is determined for each server (see element 1004 in fog 10a and Col 14 lines 7-22).

Block discloses a group manager (storing unit) determining each server capacity and load (accumulated value) as disclosed in the abstract and Col 2 lines 58-65.

Block discloses performing proper load balancing strategies to identify which server is best able to handle the load, where this is performed in the event of a session (distribution event) as disclosed in Col 2 line 66-Col 3 line 11.

Block does not disclose transmitting to a destination that has a smallest accumulated value.

Yoshida et al. ('Yoshida' hereinafter) discloses a control server (distribution unit) connected to a plurality of possible destination servers, which determines which server should respond to a transmission request based on which server has a data count which is the smallest (Col 2 lines 6-17).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the group manager as disclosed by Block, to be associated with a control server for determining which server of a plurality of servers has the smallest

load, and thus transmitting data to that server as disclosed by Yoshida. The motivation for this modification is to ensure that the loads placed on the destination servers are distributed (Col 1 line 64- Col 2 line 5).

Claim 7 Block discloses a distribution event occurring upon starting a session, where a session may be triggered by a unique identifier such as that of an address (Col 8 lines 15-23). It would have been obvious to one of the ordinary skill in the art at the time of the invention that a unique identifier in the form of an address would be transported within a packet.

Claim 8 Block discloses a distribution event occurring upon staring a session (Col 8 lines 10-62).

Claim 9 Block discloses a group manager determining resource utilization with respect to each server, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that a key be used to store this information.

2. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Block et al. (US 6658473) in view of Yoshida et al. (US 6401121) in further view of Ochiai (US 5067127)

Claim 3 Block discloses determining the load on each server (Col 2 lines 58-65), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that for every new session, the load of each server would be determined based on the previous load added to the sever, added to the new load transmitted to the server (Col 11 lines 47-59).

Block does not specifically disclose determining an accumulated value by adding the inverse of the weight value to the accumulated value each time the distribution event occurs.

Ochiai discloses each relay line of a plurality of relay lines having associated with it a relay line resistive value (weight value) that is inversely proportional to a residual capacity related to that respective line (Col 5 lines 37-49). Therefore, the inverse of the resistive value (weight value) is proportional to the residual capacity. Furthermore, the residual capacity is proportional to the amount of capacity used on the respective line.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify determining the load on each server for a new session as disclosed by Block, to combine the inverse of the resistive value which is proportional to the capacity used on a given line with the previous accumulated value. The motivation for

this modification is to implement an alternative means for calculating managing the load on a given line or server.

Claim 4 Block discloses determining the load on each server (Col 2 lines 58-65), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that for every new session, the load of each server would be determined based on the previous load added to the sever, added to the new load transmitted to the server (Col 11 lines 47-59).

Block discloses determining an expected added usage (Col 11 lines 52-59) and the group manager determining an expected utilization by a session (element 903 and Col 12 lines 23-32). That expected value (packet size) is used to determine a desirability (weight value) as disclosed in Col 11 lines 52-59.

Block does not specifically disclose determining an accumulated value by adding the product of the inverse of the weight value and the packet size to the accumulated value each time the distribution event occurs.

Ochiai discloses each relay line of a plurality of relay lines having associated with it a relay line resistive value (weight value) that is inversely proportional to a residual capacity related to that respective line (Col 5 lines 37-49). Therefore, the inverse of the resistive value (weight value) is proportional to the residual capacity. Furthermore, the residual capacity is proportional to the amount of capacity used on the respective line.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify determining the load on each server for a new session as disclosed

by Block, to combine the inverse of the resistive value which is proportional to the capacity used on a given line with the previous accumulated value. Furthermore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to implement an expected usage value, as that value is proportional to the load utilization value. The motivation for this modification is to implement an alternative means for calculating managing the load on a given line or server.

Claim 5 Block discloses determining the load on each server (Col 2 lines 58-65), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that for every new session, the load of each server would be determined based on the previous load added to the sever, added to the new load transmitted to the server (Col 11 lines 47-59).

Block discloses staring a session, where a session consists of a service being provided. It would have been obvious to one of the ordinary skill in the art at the time of the invention that similar to a weight being assigned for each server, a weight can be assigned to different types of services (Col 8 lines 45-62).

Block does not specifically disclose determining an accumulated value by adding the product of the inverse of the weight value and the weight value of the process to the accumulated value each time the distribution event occurs.

Ochiai discloses each relay line of a plurality of relay lines having associated with it a relay line resistive value (weight value) that is inversely proportional to a residual capacity related to that respective line (Col 5 lines 37-49). Therefore, the inverse of the resistive value (weight value) is proportional to the residual capacity.

Furthermore, the residual capacity is proportional to the amount of capacity used on the respective line.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify determining the load on each server for a new session as disclosed by Block, to combine the inverse of the resistive value which is proportional to the capacity used on a given line with the previous accumulated value. Furthermore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to factor in a weight of a given service within a session as disclosed above. The motivation for this modification is to implement an alternative means for calculating managing the load on a given line or server.

Claim 6 Block discloses determining the load on each server (Col 2 lines 58-65), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that for every new session, the load of each server would be determined based on the previous load added to the sever, added to the new load transmitted to the server (Col 11 lines 47-59).

Block does not specifically disclose determining an accumulated value by adding the product of the inverse of the weight value and the weight value of the packet file type to the accumulated value each time the distribution event occurs.

Yoshida discloses performing load distribution where a plurality of data files are stored, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that similar to assigning weights to each server, weights may be assigned to a particular data file type.

The combined teachings of Block and Yoshida do not specifically disclose determining an accumulated value by adding the product of the inverse of the weight value and the weight value of the packet file type to the accumulated value each time the distribution event occurs.

Ochiai discloses each relay line of a plurality of relay lines having associated with it a relay line resistive value (weight value) that is inversely proportional to a residual capacity related to that respective line (Col 5 lines 37-49). Therefore, the inverse of the resistive value (weight value) is proportional to the residual capacity. Furthermore, the residual capacity is proportional to the amount of capacity used on the respective line.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify determining the load on each server for a new session as disclosed by Block, to combine the inverse of the resistive value which is proportional to the capacity used on a given line with the previous accumulated value. Furthermore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to factor in a weight of a packet file type as disclosed by Yoshida as disclosed above. The motivation for this modification is to implement an alternative means for calculating managing the load on a given line or server.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Le Boudec et al. discloses a method that determines a link weight, and determines the best path based on the smallest weight.

(b) Hirose (JP pub no. 04081148) discloses a method of performing load distribution.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey
Examiner
Art Unit 2667

6/2/05

AFSAR QURESHI
PRIMARY EXAMINER
6/10/05